

# IOWA STATE UNIVERSITY

## Digital Repository

---

Agricultural Education and Studies Publications

Agricultural Education and Studies

---

2017

## Previous Experience Not Required: Contextualizing the Choice to Teach School-Based Agricultural Education

Adam A. Marx

*North Dakota State University*

Amy R. Smith

*University of Minnesota - Twin Cities*

Scott W. Smalley

*Iowa State University, [smalle16@iastate.edu](mailto:smalle16@iastate.edu)*

Courtney Miller

*North Dakota State University*

Follow this and additional works at: [https://lib.dr.iastate.edu/ageds\\_pubs](https://lib.dr.iastate.edu/ageds_pubs)



Part of the [Agricultural Education Commons](#), and the [Teacher Education and Professional Development Commons](#)

The complete bibliographic information for this item can be found at [https://lib.dr.iastate.edu/ageds\\_pubs/55](https://lib.dr.iastate.edu/ageds_pubs/55). For information on how to cite this item, please visit <http://lib.dr.iastate.edu/howtocite.html>.

---

This Article is brought to you for free and open access by the Agricultural Education and Studies at Iowa State University Digital Repository. It has been accepted for inclusion in Agricultural Education and Studies Publications by an authorized administrator of Iowa State University Digital Repository. For more information, please contact [digirep@iastate.edu](mailto:digirep@iastate.edu).

---

# Previous Experience Not Required: Contextualizing the Choice to Teach School-Based Agricultural Education

## Abstract

The purpose of this study was to identify key career choice items which lead students without previous experience in school-based agricultural education (SBAE) to pursuing agricultural education. The Ag Ed FIT-Choice® model adapted by Lawver (2009) and developed by Richardson and Watt (2006) provided the investigative framework to design this study. Findings were organized around categories of the Ag Ed Fit-Choice Model (Lawver, 2009) with the exception of one additional category, believed unique to this group. Two focus groups were assembled to include ten participants. A myriad of experiences led participants to consider SBAE as a career. Certainly, it can be concluded that a passion for agricultural education does not solely stem from prior SBAE experiences. The intrigue toward the varied content associated with agriculture played a substantial role in participants' choice to teach agriculture. Participants' reflections revealed a distinct interconnectedness of domains within the Ag Ed Fit-Choice® model and the way in which this group of future teachers reflects upon career decision. Further, participants engaged in near constant value-checking and introspective career evaluation resulting through field experiences. The present study generated additional questions on the most effective ways to recruit future SBAE teachers who are non-traditional SBAE students.

## Keywords

preservice teachers, teacher education, SBAE, recruitment, non-traditional students

## Disciplines

Agricultural Education | Teacher Education and Professional Development

## Comments

This article is published as Marx, A. A., Smith, A. R., Smalley, S. W. & Miller, C. (2017). Previous experience not required: Contextualizing the choice to teach school-based agricultural education. *Journal of Agricultural Education*, 58(4) 126-142. doi: [10.5032/jae.2017.04126](https://doi.org/10.5032/jae.2017.04126). Posted with permission.

# **Previous Experience Not Required: Contextualizing the Choice to Teach School-Based Agricultural Education**

Adam A. Marx<sup>1</sup>, Amy R. Smith<sup>2</sup>, Scott W. Smalley<sup>3</sup> & Courtney Miller<sup>4</sup>

## **Abstract**

*The purpose of this study was to identify key career choice items which lead students without previous experience in school-based agricultural education (SBAE) to pursuing agricultural education. The Ag Ed FIT-Choice® model adapted by Lawver (2009) and developed by Richardson and Watt (2006) provided the investigative framework to design this study. Findings were organized around categories of the Ag Ed Fit-Choice Model (Lawver, 2009) with the exception of one additional category, believed unique to this group. Two focus groups were assembled to include ten participants. A myriad of experiences led participants to consider SBAE as a career. Certainly, it can be concluded that a passion for agricultural education does not solely stem from prior SBAE experiences. The intrigue toward the varied content associated with agriculture played a substantial role in participants' choice to teach agriculture. Participants' reflections revealed a distinct interconnectedness of domains within the Ag Ed Fit-Choice® model and the way in which this group of future teachers reflects upon career decision. Further, participants engaged in near constant value-checking and introspective career evaluation resulting through field experiences. The present study generated additional questions on the most effective ways to recruit future SBAE teachers who are non-traditional SBAE students.*

**Keywords:** preservice teachers, teacher education, SBAE, recruitment, non-traditional students

**Author's Note:** This paper is a product of the Iowa Agricultural and Home Economics Experiment Station, Ames, Iowa. Project No. IOWO3813 and sponsored by Hatch Act and State of Iowa funds.

## **Introduction**

The shortage of school-based agricultural education (SBAE) teachers across the United States is not a newly emerging issue. In fact, Camp (2000) reported a shortage of SBAE teachers has been a prevalent concern, even as early as 1921. This shortage was likely due to a burgeoning new career field and new secondary program demand. More recently, within the past decade, an average of 71% of qualified SBAE teacher candidates chose teaching as their career with remaining graduates choosing alternative professions (Kantrovich, 2010; Foster, Lawver, & Smith, 2015). Filling the need today involves both meeting the marginal program expansions and replacing those leaving the profession. Hereafter, efforts to expand the profession and meet the needs of local

---

<sup>1</sup> Adam Marx is an Assistant Professor of Agricultural Education in the School of Education at North Dakota State University, 210H FLC, PO Box 6050, Fargo, ND 58108, [adam.marx@ndsu.edu](mailto:adam.marx@ndsu.edu)

<sup>2</sup> Amy Smith is an Assistant Professor of Agricultural Education at the University of Minnesota, 146C Ruttan Hall, 1994 Buford Avenue, St. Paul, MN 55108, [arsmith@umn.edu](mailto:arsmith@umn.edu)

<sup>3</sup> Scott Smalley is an Assistant Professor of Agricultural Education at Iowa State University, 217 Curtiss Hall, Ames, IA 50011, [smalle16@iastate.edu](mailto:smalle16@iastate.edu)

<sup>4</sup> Courtney Miller was a graduate assistant at North Dakota State University, now a school-based agriculture teacher at Lakota High School, 500 Main Street, Lakota, ND 58344, [courtney.miller@k12.nd.us](mailto:courtney.miller@k12.nd.us)

programs should focus on the recruitment of more qualified candidates into agricultural teacher education programs (Ball & Torres, 2010; Kantrovich, 2010).

Summary data from each iteration of the national supply and demand studies for teachers of agricultural education spanning the last 50 years have informed the profession of consistent annual shortages (Camp, 2000; Kantrovich, 2007; 2010; Foster, Lawver, & Smith, 2016). Within the profession, recommendations consistently indicate the necessity for stakeholders in agricultural education to recruit our own and positively portray the profession of teaching. Park and Rudd (2005) indicated SBAE teachers are credited by their students for serving as a role model toward selecting teaching as a career. Beyond current teachers, options for improvement do exist in the amalgam of recruitment approaches teacher education programs currently employ (Calvin & Pense, 2013). Lawver and Torres (2011, 2012) recommended recruitment efforts and strategies focused on populations outside of SBAE and further study of agricultural education majors and current teachers who do not possess the typical SBAE background found amidst SBAE teachers. It appears that expecting current SBAE programs to produce all future teaching candidates is not realistic. Certainly, such a narrow approach to recruitment ignores the opportunity for connecting with prospective teachers outside of SBAE. As such, how might we reconfigure the recruitment process for SBAE to attract and invite a more diverse candidate population?

### **Review of Literature**

A few minutes spent scrolling through the Teacher Shortage Area Nationwide List (Cross, 2016) will reveal a diverse inventory of shortage areas within specific teaching fields across the most recent 25 year period. Several fields are consistently found on this list year in and out, among the membership is agricultural education. Within our profession we have diligently tracked and reported the disparity between the demand from local program openings to the supply of teacher candidates from our universities through the supply and demand studies (Camp, 2000; Kantrovich, 2007; 2010; Foster, Lawver, & Smith, 2016). The shortfall of initial graduates who choose the SBAE classroom is only one piece to the puzzle. Ball and Torres (2010) offer summative perspective to our perennial challenge:

It is important to note that the agriculture teacher shortage at the secondary level is not due to a shortage in the total number of graduates in agricultural education at the postsecondary level, but rather to the number of graduates who choose to teach initially, as well as the number who choose to remain in teaching on a long-term basis. Thus, regardless of the source of the problem, the solutions to the teacher deficit are recruiting and retaining teachers of agriculture (p.270).

In order to create effective mechanisms and evolve current recruitment methods of teachers, it is important to recognize how people come to choose teaching as a career. Extant literature primarily addresses teacher career choice beneath the umbrella of motivation. In particular, reasons for pursuing teaching are identified through altruistic, intrinsic, and extrinsic motivations (Kyriacou & Coulthard, 2000). Lawver and Torres (2011) reported intrinsic factors and drive to pursue teaching demonstrated the greatest predictive power toward describing career choice. Bastick (1999) concluded motivations to enter into the teaching profession including job security, salary, and work schedule according to a study of Jamaican pre-service teachers. Kyriacou and Coulthard (2000) buttressed those findings in a study of undergraduates who were identified into groups as pro-teaching, undecided, and anti-teaching. The pro-teaching camp approached the decision from an altruistic and intrinsic desire to serve as an educator. The anti-teaching camp did not view the same career characteristics as advantageous. The undecided group however, offered the most room for recruitment tactics as tailoring strategies toward the areas they found important in a career could sway them toward teaching as a professional choice (Kyriacou & Coulthard,

2000). Thereby, according to their study, efforts of recruitment should focus on those who are not opposed to teaching as a career by providing those undecided candidates with reasons to choose education. Teaching appeals to those who believe it offers them the career attributes they set out for in career selection/exploration (See, 2004).

In addition to getting candidates to choose the profession in the first place, we must also contend with teachers leaving the profession early in their career for myriad reasons. Recent data from the National Center for Educational Statistics (Golding, Taie, Riddles, & Owens, 2014) indicates nationwide on average, eight percent of teachers within their induction years (1-3 years) left the profession during the measurement periods of 2004-2005, 2008-2009, and 2012-2013. Amounting to over 250,000 teacher openings beyond retirements. These findings are in contrast to figures Ingersoll (2003) reported in the range of 40-50 percent attrition within the induction years. Pertinent to SBAE within the Golding et al. study, they reported slightly higher attrition rates among teachers in rural areas (8.4 %) and those with a base salary of less than \$30,000 (14.8%) as compared to attrition among all other teachers.

Research and writing within agricultural education indicates the secondary agriculture teacher positively influences their students' career decisions in general (Esters & Bowen, 2005; Frazee, Wingenbach, Rutherford, & Wolfskill, 2011; Priest, Ricketts, Navarro, & Duncan, 2009; Marx, Simonsen, & Kitchel, 2014; Wildman & Torres, 2001), but more important to the present study, students' decisions to pursue teaching (Ball & Torres, 2010; Lawver & Torres, 2012; Park & Rudd, 2005). According Wildman and Torres (2001), top influences on students' choice of an agriculturally related college major included prior experience in agriculture, other agricultural experiences, agriculture and extension professionals, and perceptions of the academic department. Individual aspects of the SBAE program do not seem to influence the decision to choose teaching as a career according to Lawver and Torres (2011). Although, students' participation in SBAE had a positive relationship with their self-reported intent to teach.

Lawver and Torres (2011, 2012) recommended recruitment efforts and strategies with populations outside of SBAE. Further, they recommended pursuing research among agricultural education majors and current teachers who do not have the typical SBAE background most often studied. Additionally, we need to devise ways to recruit more candidates into agricultural teacher preparation programs (Ball & Torres, 2010). Existing SBAE programs are a bountiful source of prospective teachers, however what other sources exist that may supply a more diverse body of SBAE teachers to the profession? The present study will attempt to provide a greater understanding of the context to choosing SBAE as a career focusing specifically on pre-service students majoring in agricultural education without firsthand experiences as a secondary student in SBAE.

### **Conceptual/Theoretical Framework**

The Ag Ed FIT-Choice® model adapted by Lawver (2009) and developed by Richardson and Watt (2006, 2007) provided the investigative framework to design this study. Designed within the context of the expectancy-value theory of motivation (Wigfield & Eccles, 2000), the Ag Ed FIT Choice® model provides a guide for describing why people choose the career of teaching in SBAE. Expectancy-value theory of motivation proposes, relative to goal achievement, that a positive relationship exists between the degree to which people place expectation to succeed and the value placed on the goal. These expectancies and values in due course influence the person's effort and their willingness to perform and persist toward their goals. Expectancy-value theory aligns more closely to an efficacy construct, a belief in one's self, than solely an outcome construct (Wigfield & Eccles, 2000).

The FIT Choice® model as developed and validated by Watt and Richardson (2007) aligns directly with the major premises of expectancy-value theory of motivation. The domains within the model of Task Return, Self-Perception, Value, and Fallback Career are flanked by the socialization influences (experiences) and the choice decision (outcome) at the right. The task return domain is comprised of the individuals' perceptions of the career of teaching and the level of expertise required, the demands of the profession, alongside the evaluation of the social acceptability of teaching. Further, morale is the perception of how valued they feel teachers are by society and salary involves perceptions of income potential of the career. The self-perception domain involves the perceptions of their ability to be a quality teacher and if they perceive themselves as being a good candidate for teaching. Intrinsic career value involves an individual's interest in the specific teaching subject area. Personal utility value addresses how the career fits personal career goals and the perception of ease in the profession (bludging). Social utility value describes the "desire to provide a service to society and make a worthwhile contribution" (Watt & Richardson, 2007, p. 175). Lastly, fallback career parses out how teaching emerged as a career choice for the individual.

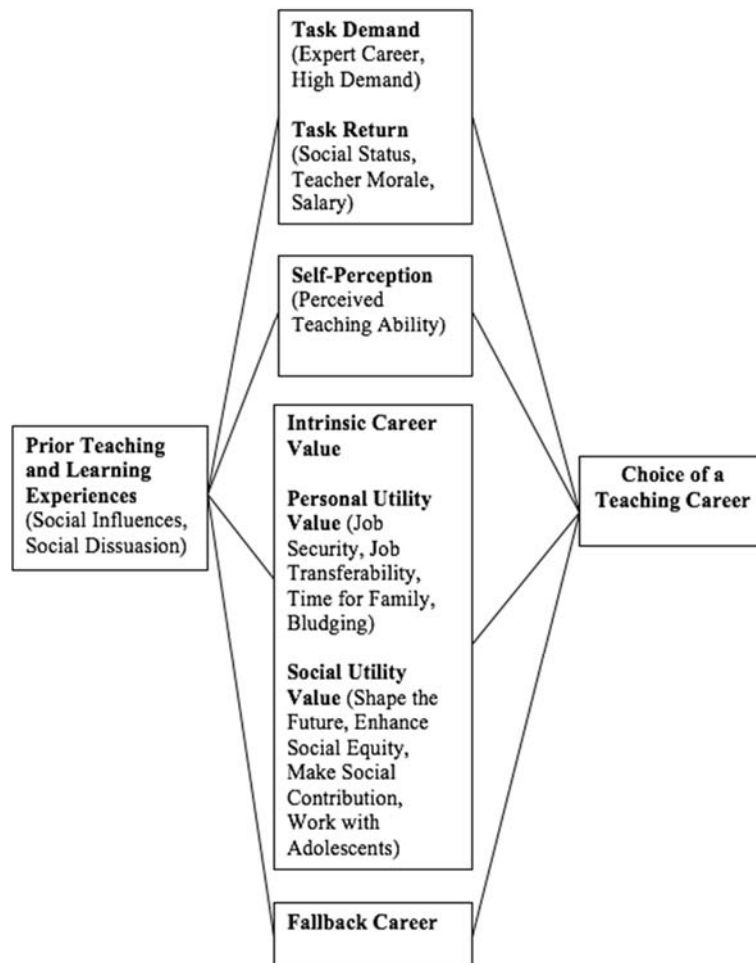


Figure 1. Ag Ed FIT-Choice® Model, Lawver (2009) adapted from Richardson and Watt (2006) and Watt & Richardson (2007).

### **Purpose of the Study**

The purpose of this study was to identify key career choice items which lead students without experience in the field of school-based agricultural education toward pursuing agricultural education. This study addresses Research Priority Area Five: Efficient and Effective Agricultural Education Program within the American Association for Agricultural Education's National Research Agenda (Roberts, Harder, & Brashears, 2016). Specifically, the study addressed the following research questions:

1. What leads individuals without experience in SBAE to pursue teaching agriculture as a career choice?
2. What personal factors guides decision making toward SBAE?
3. What prior knowledge of SBAE influenced career decision making?
4. What aspects of SBAE captures interest in the profession?

### **Methods**

The intent of this study was to provide description and context to the career choice process of those currently enrolled in a SBAE teacher preparation program but without first-hand exposure to school-based agricultural education as a secondary student. Therefore, this study employed a single-category focus group design (Krueger & Casey, 2009). The purpose of this focus group design is to attempt to reach theoretical saturation through the incorporation and preliminary analysis of separate homogeneous groups. Saturation is reached once no new insights are observed with the addition of groups (Krueger & Casey, 2009). Data are analyzed across groups seeking patterns and themes. Procedures and materials for the focus groups were organized according to the design recommendations of Krueger and Casey (2009). In an effort to establish common ground amongst the researchers, we created a written plan to further articulate and clarify study objectives, number of groups to be conducted, participants to invite, plan of action, and a timeline. Ten ( $n = 10$ ) guiding questions were decided upon designed around the Ag Ed Fit-Choice® Model along with a script to ensure consistency of instructions and delivery of prompts to the participants (see Table 1). Face and content validity of the guiding questions and script was established after thorough review by the three researchers and a panel of experts familiar with focus group research and the guiding model of this study. A critical incidents approach to analytic design (Krueger & Casey, 2009) was incorporated in this study whereby the key task was to identify the crucial events, actions, or situations of the individuals. In this case, the mission was to provide context to the events which led each participant to choose school-based agricultural education as a career.

### **Sample, Data Collection, and Analysis**

Participants for this study were selected through purposeful means by the researchers from current students at North Dakota State University, University of Minnesota, and South Dakota State University. The researchers reside at each of these institutions and each advised students who fit within the parameters of the study. The process of screening involved criteria established by the researchers which included; a) a current student (undergraduate/graduate path) enrolled in a traditional licensure agricultural teacher education program, b) no previous school-based agricultural education exposure/experience as a secondary student. Focus groups were scheduled for the early evenings in the spring of 2016. The researchers incorporated a hybrid approach to data collection whereby a virtual meeting room was created for participants who were currently student teaching or located at an unreasonable distance from the in-person focus group site, allowing for those individuals' involvement in the focus group. Collaborating researchers located off site also

participated by virtual means. The virtual room allowed for constant two-way communication between all participants and researchers within a classroom equipped with appropriate technology. Interview sessions were scheduled for up to 45 minutes. Krueger and Casey (2009) recommend between five and eight participants in each focus group. However, complexity of the researched topic can warrant fewer participants (four to five total) to help ensure all participants have the opportunity to adequately delineate their experience. Two focus groups were assembled to include 10 (N) participants. Focus group one included six ( $n=6$ ) participants and four ( $n=4$ ) in group two.

Table 1

## Interview Question Alignment with FIT-Choice Model

Interview Question	FIT-Choice Connection
1 Tell us a little about yourself. Please share your academic program (undergraduate/graduate) and academic level.	
2 What are your career plans following graduation/degree completion? Describe the type of community/school/agricultural education program you envision serving.	Choice of Teaching
3 School-based agricultural education offers students a broad variety of content areas related to agriculture, food, and natural resource science. What life experiences or activities contributed to your interest in these areas?	PTLE, TDR, IV, PV*
4 How (or from whom) did you learn that school-based agricultural education was a career option?	PTLE, FC, SP
5 What led you to pursue teaching agriculture as a career?	PTLE, FC, SP, PV, SU
6 Who, if anyone in particular, has encouraged you or supported your decision to pursue teaching school-based agricultural education?	SP, PV, SU
7 Can you identify any factors that have discouraged or challenged your decision to teaching pursue school-based agricultural education?	SP, PV, SU, TDR
8 From a career perspective, what aspect(s) of school-based agricultural education are particularly appealing to you? Why?	SP, PV, SU, IV, TDR
9 What aspect(s) of school-based agricultural education are least appealing to you? Why?	SP, PV, SU, TDR
10 Considering the following list of potential “influences” on teaching agriculture as a career choice, which would you say have been the greatest encouragers/discouragers to your decision to become a school-based agriculture teacher: And Why?	PTLE

*Note.* \*PTLE=Prior teaching and learning experiences, TDR=Task demand and return, SP=Self-perception, IV=Intrinsic career value, PV=Personal utility value, SV=Social utility value, FC=Fallback career.

A brief description of each participant is provided for context. We created pseudonyms for each to aid in protecting their anonymity. **Leslie** grew up in a small rural town and was in dance



with a friend who was heavily involved and she became interested. She will complete her student teaching and graduate in the fall of 2016. **Kasey** is a senior who graduated in December 2016 following her student teaching internship. She grew up on a cattle and diversified crops farm. **Ginny**, a senior who completed her 12-week teaching internship and graduated in May 2016. An urban native, she has already accepted a teaching position at a small, urban, private school where she will charter a school-based agricultural education program. **Mary** pursued a double major Agribusiness and Agricultural Education. She started a new program in her small rural hometown where she grew up on her family's farm. **Heather** grew up in a small town and participated heavily in 4-H throughout her youth and exhibited livestock at her county fair.

**Ashley** sought SBAE through a master's route following her undergraduate degree. She grew up in a small rural community and served our country through the armed services for over ten years. **Lauren**, a senior (on track to graduate in December 2016) completed her 12-week teaching internship, is an adult learner returning to pursue a degree in agricultural education after funding was cut for a nutrition education extension position she held previously. **Jon** is an adult learner, classified as a junior. He offers a passion for urban agricultural education though he has had limited exposure to traditional aspects of agriculture. **Erin**, a sophomore, grew up on a family dairy operation. As a result of her agricultural interest, she was involved in encouraging her high school to begin offering school-based agricultural education although the program didn't begin until after she graduated. Lastly, **Margo** grew up on a small hobby farm and is a junior as of fall 2016. She worked with her high school to begin a school-based agricultural education program, but it never got started.

This study was designed and analyzed through a post-positivist lens and epistemology whereby we focused on more pragmatic approaches for description and application as opposed to purely extrapolative conjecture. All researchers participated in each iteration of data collection and met following the focus group to verify field notes, provide oral summary, and offer closure to each data collection as recommended by Krueger and Casey (2009). Following the data collection, the three researchers separately completed open coding of verbatim focus group interview transcriptions and field notes through the lens of the Ag Ed Fit-Choice Model theoretical model (Lawver, 2009). Prefigured categories (Crabtree & Miller, 1992 in Creswell, 2013) according to the theoretical model were implemented. Codes were grouped and categorized into the constructs analogous to the Lawver & Torres (2012) model for teacher career choice. Trustworthiness of data was established using recommendations from Creswell (2013), Krueger and Casey (2009), and Yin (2009) through triangulation of data sources and the use of multiple investigators to provide consensual validation of the analysis and dimensionality to the data itself. Further, the researchers possess a deep knowledge of agriculture, agricultural education, and career decision-making to support the construction of the interview transcript and to interpret participant dialogue. Following careful analysis of video, audio, and reading transcripts separate findings were ultimately reconciled by the researchers to appropriately represent the experiences of the participants. Finally, participants were asked to review the findings in an effort to provide a confirmable and dependable reporting.

### **Findings**

The findings were organized around categories of the Ag Ed Fit-Choice Model (Lawver, 2009) with the exception of one additional category, believed unique to this group. This section represents the participants' experiences and pathways toward selecting agricultural education with preliminary intentions to teach.

### **Prior Teaching & Learning Experiences (and Influences)**

Prior experiences with teaching, whether in a formal, non-formal, or informal environment help shape the choice to teach and the interest in the specific profession. Considered with the experiences are the people who helped encourage or dissuade our participants from teaching SBAE. Within our interview transcript, questions three, four, five, and ten supported content for this construct. Related to prior teaching and learning experiences, many of our participants reported receiving positive encouragement from those within the teaching profession throughout their academic career. In many cases, participants commented that one or more teachers had stated that he or she may “be a good teacher”. The simple statement then planted the seed, nudging them to consider the teaching profession, when otherwise they likely would not have considered it. Jon indicated that certain teachers including his university advisor made him “feel as if I belonged in the education field, just because of the way I can connect with people.”

Participants reflected upon a variety of non-formal teaching experiences which built efficacy for pursuing teaching. The experiences were as broad as instructing youth as a camp counselor to overseeing adult education in nutrition. These experiences were instrumental in guiding participants towards the career path of pursuing Agricultural Education. No matter the path to SBAE, preservice teachers in this study largely expressed a prior vision to teach which was continually reinforced by positive experiences working with youth.

While the passion for working with youth lead participants to teaching, their passion for agriculture was often propelled by a previous experience in an agriculture field. These experiences ranged from family involvement in production agriculture, 4-H, and work regarding community garden or nutrition, and agriculture development team with the military. These past experiences provided a solid foundation regarding enthusiasm for agriculture and participants often spoke of the desire for others to share similar experiences that agriculture can provide. Ashley recalled her military experience on an agriculture development team training Afghan women to raise and preserve their food: “They were eating what they were growing and they had pride, I was actually doing some good for that population which translates into I can come back and possibly teach.” First-hand experiences with others who had limited knowledge in agriculture or nutrition were often cited as an important catalyst to teach about agriculture. Lauren detailed her experience working with immigrant populations in [Large City] promoting consumption of fresh fruits and vegetables:

[after preparing a strawberry and spinach salad for a program], I had a lot of people come through and they asked, “What do strawberries taste like on their own?”, and so it was just like a really eye-opening moment for me. Then I thought, you know, talking about nutrition isn’t really about fruits and vegetables it’s about access and availability. And so that is really where my interest in agriculture came to be.

Further, participants asserted that educating others to help “stomp out (agriculture) ignorance” was deemed a noble and worthy cause.

### **Tasks of Teaching**

The Task Perceptions construct related to an individual’s choice to teach agriculture is divided into Task Demand (expert career, highly demanding) and Task Return (social status, teacher morale, and salary). Questions three, seven, and eight in our interview transcript addressed this construct. Participants in this study identified both areas influenced or encouraged them to pursue SBAE. In spite of anecdotal beliefs about diminishing societal views of the teaching profession, focus group participants commented on the positive outlook and perspectives among

the profession, and were encouraged by observing and experiencing strong teacher morale. Lauren offered, “in this program... you’ve got people saying, ‘Oh, this [profession] is wonderful! And, this is how you make it work in your current life situation’.”

Beyond the positive encouragement, the welcoming nature of the “Agricultural Education family” helped to nurture participants’ development as future teachers. The support network of people our participants found within SBAE during early field experiences in SBAE helped to solidify participants’ choice to teach. Ginny commented, “I have received so much support from other Ag teachers in [state].” Participants shared a positive perception of professional connectedness, feeling as if they were already a part of an existing community of practice. Kasey shared that she found support and comfort interacting with current female SBAE teachers, stating, “Once I met some female teachers I kind of had the mindset of, if they can do it, I can too.” Participants shared an overall positive perception of professional connectedness with current SBAE teachers and colleagues, as if they were already officially a part of an existing community of practice.

At the same time, SBAE was acknowledged as a high demand task requiring commitment and hard work. Erin summarized this belief, stating, “There’s so much we have to know. And, there’s so much to teach in the four short years you have [with students].” “Doing it all” in terms of lesson planning, handling classroom management issues, and promoting and marketing an SBAE program will inevitably be challenging and participants recognized those characteristics. However, they also recognized that the ever-changing nature of the agricultural industry and variety of content areas included in agriculture, food, and natural resource education ensure that a career in SBAE will never be monotonous or boring. Numerous participants elaborated on this, with Kasey offering, “It’s constantly changing... like, 15 years ago they weren’t teaching about GMOs.” More collectively, others added, “I like how in Ag classes there is always something new going on. You get up, you get out of your seat and do hands-on activities and labs.” Jon noted a strong affection for the science of agriculture, stating, “Agricultural education has so much science in it. And, I’m a big fan of science.”

### **Self-Perception**

A perceived professional fit is an important aspect in choosing a career. The Self-Perception construct is the simplest in terms of dimensionality. Self-Perception is a person positioning themselves around the perceived ability to teach in both a holistic capacity as well as subject specific. Additionally, this construct involves how they view themselves as a potential teacher. Evidence supporting Self-perception was drawn primarily from questions six, seven, and eight. This construct was ultimately expressed through their desires to teach and images of their future within the profession. Participants’ perceived abilities were first expressed as a longtime desire to teach. Kasey and Erin stated “...teaching was always going to be a good career option (for me) ...,” and many other participants were of the same mind.

While the longing to teach was evident for many preservice teachers, the type of content was often less clear. The desire to teach was met with a lack of passion for other subject areas, Erin and Mary similarly styled that “there was never a subject that I got super passionate about” or in some cases, even interest in core subject classes as Jon described; “I was going to be an English teacher, but I got bored of that really quick.” The participants discussed the challenges regarding teaching they believed to be most evident once they had their own program. Their own lack of experience with school-based agricultural education was an underlying concern. The participants expressed this void of association made it more difficult to connect with classmates (peers) within the teacher preparation program. Heather pointed out that “when over half your class has been state

FFA officers, and they're like all talking about [their experiences] and you're like sitting there like, cool, I have no idea what we are talking about, cool." However, the participants extrapolated that they don't need previous school based agricultural education to be successful in their teaching endeavors. Margo reasoned; "just because your dad was like an FFA advisor or you did this in your chapter doesn't mean you're going to be a better teacher than I will, just because you had those experiences."

Teacher candidates discussed the type of school they imagined themselves teaching in the future. Most often they expressed a desire to teach in an environment similar to the school where they grew up. Heather stated "I grew up in a small community and that's what I've always known." Other participants articulated a need for agricultural education in a particular area matched their vision. "I think a lot of kids in the city could definitely learn so much from agriculture...", noted Jon. The teacher candidates expressed their vision of the role agriculture played in the society and yearned to teach in a setting that would easily translate this perception.

Teacher candidates also mentioned interest in beginning a new program. Lauren was in contact with a school to begin a new program. "I told him about my interest and excitement with [Large City] public school." Many participants indicated that starting a new program would allow them to make a direct impact in a way that was fulfilling for them. Mary concluded: "It was always kind of the plan to go back and start a program (at home) because I always wanted one when I was in high school."

### **Values Toward SBAE**

Alignment of values toward a career area comprises a substantial proportion of a person's decision process. Within the Ag Ed FIT-Choice model, it is posited that the career seeker finds intrinsic value in the career of teaching agriculture. Meaning, they are motivated by the career and inherently value teaching as a career. Teaching aligns with their goals and their past. Questions three, five, six, seven, eight, and nine from our transcript of questions addressed this construct. Several participants cited the connection between teaching agriculture and their farm rearing and content interests as a propellant toward seeking this career path: "It [teaching SBAE] fits well with my passion for agriculture..." stated Heather. Others articulated that SBAE combined other interests for them, Jon reflected: "I'm great with people, [SBAE allows me to] be able to teach them something really cool. Ultimately, just "being able to work with kids" seemed value enough for the majority of the participants.

Alongside the intrinsic value felt toward the career, utility value was expressed richly throughout our conversations. The participants articulated their perceptions of a secure and transferable career which offered them the ability to seek out and live the type of life they ultimately envisioned for themselves. In particular, a few recognized the nationwide need for agriculture teachers as a sense of security for them and their family as Leslie stated; "My mom [is] reassured that I'll have a job after college." A broad applicability of a degree in agricultural education was an attractant for many of our participants. Kasey discussed her previous thoughts about entering into another Career and Technical Education (CTE) area and questioned: "What am I going to do with this degree [in another CTE area] if I don't want to teach in the end?" Ashley, earning her teaching license via a graduate degree, described; "[While] doing the general agriculture degree path, I kind of got to the point where I graduated and said great, I know this stuff, now what do I do with it?" Our participants felt SBAE offered a diverse set of outcomes and preparation for whatever career opportunity was presented to them. Although, the inexorable fact that a teaching job may not be available near their family home did pose a sense of uncertainty within the participants. A further attractant which weighed in on a few of the female participants' decision

process is the flexibility the career of teaching offers for their future family life as Kasey discussed; "...maybe one day having a family and still being on the same schedule that your kids would be on."

The most influential factor with this group's' outlook toward SBAE seemed to revolve around their perceived social utility value of the career. In particular, the influence agriculture teachers have on their students was resoundingly encouraging across the board. Through field experiences Lauren reflected, "I watch the [ag] teachers have an opportunity to get a closer relationship with the students in ag than in other programs [or parts of the school]." Further she articulated, "I think ag is really good at capturing those students [who don't fit in] and helping get them into something that would work for them, and help them to be successful outside of school." Their outlook on the influence of the agriculture teacher spilled over into their overall view of the contribution to youth and society through working in SBAE. Agricultural education offers these future teachers the opportunity to teach in diverse ways, both methodologically and in content. "[What's encouraging is] inspiring them to learn about the natural world instead of having them looking at a computer screen all day," countered Jon. Others were ignited by "the hands-on learning aspect of it." Each participant was nearing the final year or final requirements of their program and communicated an intentioned responsibility toward their future roles as teachers. Ashley articulated her observations and reflections on the program at her former high school:

If he [the ag teacher at her former high school] had promoted animal sciences or different plant sciences, or something, I might have gotten more interested in it. As a future ag teacher that's probably one of my biggest goals is to make sure that I don't just pigeon-hole an ag program.

Others identified additional responsibilities which encouraged them; "being a [ag] teacher I can try to rid the [misinformation] spread by the media about agriculture." Further, they challenged themselves to "overcome society's view [of SBAE], they [students] don't have to be from a farm to do it."

### **Fallback Career**

The Fallback Career construct was defined as teaching being a default choice divergent from the initial career choice. Questions four and five of our interview transcript aligned with this construct. Watt and Richardson (2007) stated that this construct is represented the "possibility of people not so much choosing teaching, but defaulting into it" (p.175). However, with the present group of pre-service teachers not so many of them defaulted into teaching as much as teaching may have chosen them. Participants often lacked knowledge about the existence of SBAE when initially seeking career options at the onset of college, therefore teaching agriculture was a fallback career for most. Many stumbled across the degree program, which initiated their interest in SBAE. Jon mused "I love the chemistry, but it didn't love me, I had to try and find something else." Wrestling with these career disconnects led many participants to seek out other opportunities. In searching, participants expressed they stumbled upon agriculture education by "just going to the University's website and searching up some degree options" and sought to learn more on the field. Others found agricultural education earlier as Margo described:

I was involved with 4-H, but ...a local [FFA] chapter let some of us participate with some of their FFA events through like general livestock judging and showing and that's basically where my FFA experience started and ended. But, one day I was sitting in a college health class and the teacher is telling us about how the meat

from pigs is only white meat. And that just kind of really irritated me and I argued my point, and she didn't listen. And that's ... why I think Ag Ed is important. That's kinda what I wanted to is kind of do is guide people from animal to plate on how their food gets there.

Although she didn't have the opportunity to directly engage with SBAE as a secondary student Mary reported "I always wanted one [an SBAE program] when I was in high school. Then I came here and I kind of got introduced to it, and it all fell into place..." Many discovered the major as a result of prior career experience. Participants had worked with other organizations or companies and as a result found the major based on career interest. Ashley had been involved in the military for 18 years and had an agricultural background. Through her military experience, she recounted her deployment experience during which she helped Afghani women raise their own food and subsequently found the opportunity to pursue SBAE. Lauren was laid off from the extension educational program she worked with due to major budget cuts. She recounted:

we were given a two-year scholarship to the [University] and the last day I was on the job, my coworker and I were talking about what classes are you take. And I said well I don't know what I'm taking. And she said well obviously you're taking something because you got this two-year scholarship, so she sat me down and looked through all the possible programs and that is where I learned that Ag Ed was a thing. Because I told her, I said, "I think agriculture is cool, and I ultimately would like to do something with agriculture." So, she helped me discover that that was a thing.

### **Detractors - Intercultural Dynamics**

Throughout the focus groups and through analysis of the interview transcripts a new category or potential construct to the Fit-Choice model emerged, which didn't appear to be fully addressed previously. We viewed the instances and attitudes which support this added construct as potential detractors toward candidates choosing SBAE as their career. The experiences our participants recalled seemed to fit rather cohesively into a new construct to explore further. They identified a professional culture with which they were unfamiliar and at times seemed excluding of their newness to the fraternity. Although participants did rationalize their lack of experience could be overcome, lack of experience with SBAE and the agricultural life in some instances created a degree of self-doubt related to the candidate's perceived ability to succeed in the profession. Leslie offered; "I find that some of the classes are more difficult since I don't have a background and I didn't grow up on a farm or have those hands-on prior experiences." Several participants cited related thoughts wondering if their lack of experiences would impact their ability to perform as a quality teacher and accomplish the triadic model of SBAE.

Participants identified many components of Agricultural Education specifically, regarding in-group lingo and behaviors, which posed challenges or potential barriers. Participants perceived that individuals with specific prior SBAE experiences comprised the in-group. "It definitely feels cliquey here and if you're not a part of that group you feel left out...like the FFA lingo. There's so many things, I still don't know what Parli is really" discussed Ginny. Participants articulated a belief that this in-group believed they have a predetermined skillset for being successful in SBAE. Mary sarcastically recalled "when they refer to their 'state officer year', I just roll my eyes." Margo shared, "It is discouraging talking with my classmates at time. They talk about all their success... I didn't really have any of that." Further, participants identified a lack of contemporary cultural competence in programs. Lauren stated, "FFA culture... prayers at meals exclude some students.

How do we fit all of this in and make this inclusive program [especially] when looking at it in terms of doing something (SBAE) in an urban setting?”

### **Conclusions, Implications, & Recommendations**

The premise of this study was to provide context to the career choice process of a group of preservice teachers without experience in school-based agricultural education at three Midwestern land-grant universities. As such, unique participants in these focus groups presented important considerations for teacher preparation programs. As we reflected on the research questions of the study, we found as somewhat expected, that each individual trod a unique path to declaring agricultural education as a college major. Certainly, this study helps to shed light on new possibilities for recruitment venues for SBAE teachers. Although, the shared experiences discussed by our pre-service teacher candidates illuminated areas of internal reflection for our profession.

Myriad experiences led participants to consider SBAE as a career. Certainly, it can be concluded that a passion for agricultural education does not solely stem from prior SBAE experiences. Membership in 4-H, familiar experience with agriculture, military training on Agricultural Development Teams, or dietetics and nutrition training may each provide for diverse pathways to SBAE and have far-reaching implications for program recruitment (Calvin & Pense, 2013). To that end, how should programs and the profession be better promoted, so more prospective students are career aware and fewer “stumble upon it”? Recruitment activities should be aligned to reach non-traditional audiences. Members of such populations may be instrumental in advancing SBAE, particularly in urban and suburban areas. Possible activities could be as simple as promotion of teaching in SBAE through 4-H clubs across the state. Deliberate promotion of Agricultural Education across Colleges of Agriculture and related food sciences programs can expose SBAE to persons who may have never considered it as a career.

Participants expressed a variety of factors visible within the Ag Ed Fit-Choice® model, depending on their personal and programmatic experiences. Consistently, participants seemed to wrestle with personal and social intrinsic career value, similar to findings in See (2004). This could be due to participants looking at how they will balance time with family, job security, and shaping a professional future. Further, within the Ag Ed Fit-Choice® model there is an interconnectedness of domains and the way in which future teachers reflect upon career decision. Participants engaged in near constant value-checking and introspective career evaluation resulting from field experiences. Engaging with the SBAE family through field experiences was recognized as an encouraging factor, as in other studies (Lawver & Torres, 2011; Park & Rudd, 2005). Through this study a new viewpoint of the professional culture emerged. Our participant's perceptions of the profession and ultimate feelings of acceptance is shaped by their interactions with peers as well as current teachers. Peers within the post-secondary programs served as exclusionary roadblocks and was oftentimes off-putting. Teacher educators should be aware of how this impacts students without SBAE experience. Critical conversations involving all teacher preparation students and attention to professional attributes of each candidate may be helpful in addressing this challenge. Further, making purposeful decisions for field experience placements is essential toward creating an identity as a future agricultural educator.

We learned from this group that agriculture and food production and processing are cool topics which clearly draws a diverse pool of pre-service teacher candidates. Therefore, the intrigue toward the varied content associated with agriculture played a substantial role in our participant's choice to teach agriculture. The role FFA plays within the SBAE program was not the impetus or really included in the equation for these candidates. In fact, FFA gave several concern of how to fully include and implement it alongside the curriculum. Participants talked about teaching

agricultural content, they were motivated yet somewhat overwhelmed, by the content. As teacher educators this is an idyllic image, but is also fraught with implications. In order to operate as a total program each area within the triad needs considered and included. If not done so, the sustainability and identity of SBAE programs could be at risk. However, it may be worth the gut check in our profession to discuss whether we are first developing agricultural teachers or FFA coaches and which is most important to the sustainability of SBAE?

While it is undoubtedly important to value and engage SBAE teachers in the process of professional recruitment, is it too much to expect our current SBAE programs to produce all future teacher candidates? Beyond current teachers, options for improvement do exist in the amalgam of recruitment approaches teacher education programs currently employ (Calvin & Pense, 2013). Certainly we know the long term needs for qualified SBAE teachers will continue to place demand on existing SBAE programs to aid in producing potential post-secondary teacher candidates. However, this seemingly narrow recruitment approach ignores the recruitment of those potential candidates outside of SBAE who may be involved in and passionate about agriculture. Therefore, how can we inform and recruit those potential SBAE teacher candidates to pursue SBAE teacher preparation?

Future research involving the Ag Ed Fit-Choice® model and SBAE teacher career decisions could begin by replicating and expanding the present study. Similarly, comparing the choice to teach SBAE among those without SBAE experience to those with SBAE experience would provide further insight into influences and the decision process. Given the extreme shortage of teachers we continue to experience, alternative certification teachers proliferate within our profession. What things draw them to SBAE and further, why didn't they choose teaching in the first place? We suppose there are many current teachers in service who likely fit with the description of our current participants. What drew them to SBAE and what has retained them in the profession to this point? Do their programs focus more heavily on the classroom and laboratory than their peers?

The present study generated additional questions on the most effective ways to recruit students who are non-traditional SBAE students. As stewards of SBAE, we must better understand the needs of all prospective SBAE teachers in order to recruit and retain more diverse teacher candidates.

### References

- Ball, A. L. & Torres, R. M. (2010). Recruiting and retaining highly qualified teachers of agriculture. In R. M. Torres, T. Kitchel, and A. L. Ball (Eds.), *Preparing and Advancing Teachers in Agricultural Education*, (268-282). Curriculum Materials Service: The Ohio State University.
- Bastick, T. (1999). *A three factor model to resolve the controversies of why trainees are motivated to choose the teaching profession*. Paper presented at the 5th Biennial Cross Campus Conference in Education, University of the West Indies: Controversies in Education, St. Augustine, Trinidad.
- Calvin, J., & Pense, S. L. (2013). Barriers and solutions to recruitment strategies of student into post-secondary agricultural education programs: A focus group approach. *Journal of Agricultural Education*, 54(4), 45-57. doi:10.5032/jae.2013.04045.



- Camp, W. G. (2000). *A national study of the supply and demand for teachers of agricultural education in 1996-1998*. A report from the American Association for Agricultural Education. Retrieved from: [http://aaaeonline.org/Resources/Documents/1996\\_1998%20Supply%20and%20Demand%20Study.pdf](http://aaaeonline.org/Resources/Documents/1996_1998%20Supply%20and%20Demand%20Study.pdf).
- Creswell, J. W. (2013). *Qualitative inquiry & research design: Choosing among five approaches*. SAGE Publications. Thousand Oaks, CA.
- Cross, F. (2016). *Teacher shortage areas: Nationwide listing 1990-1991 through 2016-2017*. U.S. Department of Education Office of Postsecondary Education. Retrieved from: <http://www2.ed.gov/about/offices/list/oep/pol/tsa.doc>.
- Esters, L. T., & Bowen, B. E. (2005). Factors influencing career choices of urban agricultural education students. *Journal of Agricultural Education*, 46(2), 24-35. doi: 10.5032/jae.2005.02024
- Foster, D. D., Lawver, R. G., & Smith, A. R. (2015). *National agricultural education supply & demand study: 2014 executive summary*. A report from the American Association for Agricultural Education. Retrieved from: [http://aaaeonline.org/Resources/Documents/NSDSummary\\_3\\_1\\_2015\\_Final.pdf](http://aaaeonline.org/Resources/Documents/NSDSummary_3_1_2015_Final.pdf)
- Foster, D. D., Lawver, R. G., & Smith, A. R. (2016). *National agricultural education supply & demand study: 2015 executive summary*. A report from the American Association for Agricultural Education. Retrieved from: [http://aaaeonline.org/resources/Documents/NSD%20Summary\\_2015.pdf](http://aaaeonline.org/resources/Documents/NSD%20Summary_2015.pdf)
- Fraze, L. B., Wingenbach, G., Rutherford, T., & Wolfskill, L. A. (2011). Effects of a Recruitment Workshop on Selected Urban High School Students' Self-Efficacy and Attitudes toward Agriculture as a Subject, College Major, and Career. *Journal of Agricultural Education*, 52(4), 123-135. doi: 10.5032/jae.2011.04123
- Goldring, R., Taie, S., & Riddles, M. (2014). Teacher attrition and mobility: Results from the 2012–13 Teacher Follow-up Survey (NCES 2014-077). U.S. Department of Education. Washington, DC: National Center for Education Statistics. Retrieved from <http://nces.ed.gov/pubsearch>.
- Ingersoll, R. (2003). Is there really a teacher shortage? Seattle, WA: Center for the Study of Teaching and Policy, University of Washington. Available at <http://depts.washington.edu/ctpmail/PDFs/LimitsPolicy-RI-09-2003.pdf>
- Kantrovich, A. J. (2007). *A national study of the supply and demand for teachers of agricultural education from 2004-2006*. A report from the American Association for Agricultural Education. Retrieved from: [http://aaaeonline.org/Resources/Documents/2004\\_2006%20Supply%20and%20Demand%20Study.pdf](http://aaaeonline.org/Resources/Documents/2004_2006%20Supply%20and%20Demand%20Study.pdf).
- Kantrovich, A. J. (2010). *The 36th volume of a national study of the supply and demand for teachers of agricultural education 2006-2009*. A report from the American Association for Agricultural Education. Retrieved from: <http://aaaeonline.org/Resources/Documents/2010%20Supply%20and%20Demand%20study%20report%20v5.pdf>.

- Krueger, R.A., & Casey, M.A. (2009). *Focus groups: A practical approach guide for applied research*. SAGE Publications: Thousand Oaks, CA.
- Kyriacou, C., & Coulthard, M. (2000). Undergraduates' views of teaching as a career choice. *Journal of Education for Teaching*, 26(2), 117-126. doi:10.1080/02607470050127036.
- Lawver, R. G. (2009). *Factors influencing agricultural education students' choice to teach*. (Doctoral dissertation). University of Missouri-Columbia, MO.
- Lawver, R. G., & Torres, R. M. (2011). Determinants of pre-service students' choice to teach secondary agricultural education. *Journal of Agricultural Education*, 52(1), 61-71. doi: 10.5032/jae.2011.01061.
- Lawver, R. G., & Torres, R. M. (2012). An analysis of post-secondary agricultural education students' choice to teach. *Journal of Agricultural Education*, 53(2), 28-42. doi: 10.5032/jae.2012.02028.
- Marx, A. A., Simonsen, J. C., & Kitchel, T. (2014). Secondary agricultural education program and human influences on career decision self-efficacy. *Journal of Agricultural Education*, 55(2), 214-229. doi: 10.5032/jae.2014.02214
- Park, T. D., & Rudd, R. (2005). A description of the characteristics attributed to students' decisions to teach agriscience. *Journal of Agricultural Education*, 46(3), 82-94. doi:10.5032/jae.2005.03082.
- Priest, K., Ricketts, J. C., Navarro, M., & Duncan, D. (2009, May). *Learning activity contributions to career decision self-efficacy among students in the north region of Georgia agricultural*. Paper presented at American Association of Agricultural Educators Research Conference, Louisville, KY.
- Richardson, P.W., & Watt, H. M. G. (2006). Who chooses teaching and why? Profiling characteristics and motivations across three Australian universities. *Asia-Pacific Journal of Teacher Education*, 34(1), 27-56. doi:10.1080/13598660500480290.
- Roberts, T. G., Harder, A., & Brashears, M. T. (Eds). (2016). *American association for agricultural education national research agenda: 2016-2020*. Gainesville, FL: Department of Agricultural Education and Communication.
- See, B. H. (2004). Determinants of teaching as a career. Paper presented at the British Educational Research Association Annual Conference, University of Manchester. Retrieved from: <http://www.leeds.ac.uk/educol/documents/00003761.htm>.
- Watt, H. M. G., & Richardson, P.W. (2007). Motivational factors influencing teaching as a career choice: Development and validation of the FIT-choice model. *The Journal of Experimental Education*, 75(3), 167-202.
- Wigfield, A., & Eccles, J. S. (2000). Expectancy-value theory of achievement motivation. *Contemporary Educational Psychology*, 25, 68-81.
- Wildman, M. & Torres, R. M. (2001). Factors identified when selecting a major in agriculture. *Journal of Agricultural Education*, 42(2), 46-55. Doi: 10.5032/jae.2001.02046.

Yin, R. K. (2009). *Case study research: Design and methods, essential guide to qualitative methods in organizational research*. Sage Publications. Thousand Oaks, CA